



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,593	12/26/2001	Masamitsu Kuwabara	217400US3	7926
22850	7590	02/19/2004	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			MCALEENAN, JAMES M	
			ART UNIT	PAPER NUMBER
			3745	
			DATE MAILED: 02/19/2004	

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/025,593

Applicant(s)

KUWABARA ET AL.

Examiner

James M McAleenan

Art Unit

3745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Applicant's amendment A paper no. 8.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Art Unit: 3745

Response to Arguments

1. Comment: The examiner several times communicated (faxing examiner's comments as well as relevant prior art) to the Applicant's representative (Akihiro Yamazaki) disclosing a solution to overcome the prior art (see below). Applicant's representative disclosed Applicant communicated with Applicant's representative in not accepting Examiner's comment to overcome the prior art. It is clear from Applicant's cited IDS that Japanese Patent Number 60-1471 meets all the elements of claim 1.

Examiner's comments to Applicant's representative (1/5/04):

1. Prior art review: a. Applicant's submitted prior art JA 60001471 (fig. 4-7).

b. JA 0022002 (fig. 8) (not made of record).

2. The examiner's comment to overcome the above prior art:

a. Cancel claims 8 and 9.

b. Claim 1, lines 13-14 (last line) "gas turbine" has been replaced with --gas turbine; and the plurality of wall sections have side end wall surfaces in the gap wherein the side end wall surfaces have blowoff openings for blowing cooling air into the gaps.--.

3. Note: Support for the above examiner's suggestion is in Applicant's Specification (see page 16, lines 7) recites "blowoff opening 43b (see fig. 3) for blowing the cooling air V4 in the side end surface 43a of the platform 43,".

2. Applicant's response dated 12/12/2003 is acknowledged, as well as new claim 12.

Art Unit: 3745

3. Applicant's arguments filed 12/12/2003 have been fully considered but they are not persuasive. Examiner cited Allen (U.S. Patent Number 4,063,845) as meeting Applicant's claimed invention in examiner's first action. Note Applicant cited Japanese Patent Number 60-1471 in Applicant Information Disclosure Statement (IDS). New claim 12 is not considered novel nor does claim 12 overcome the cited prior art.

Applicant argues that the Allen reference does not disclose "a plurality of gas flow restricting devices positioned in gaps formed between the wall sections, respectively, and configured to restrict the high temperature gas from flowing in the gaps along axial and radial directions of the gas turbine" (see page 6, last paragraph of Applicant's amendment A (paper no. 8)).

4. The Examiner respectfully disagrees with the Applicant's argument stated (see page 6, last paragraph) of Applicant's Amendment A (paper no. 8).

Examiner made the argument in the first Office action (paper no. 6) stating Applicant's claims do not overcome the presented prior art, since the Allen device does teach --a plurality of gas flow restricting devices positioned in gaps formed between the wall sections, respectively, and configured to restrict the high temperature gas from flowing in the gaps along axial and radial directions of the gas turbine--. Note, the applicant is requested by the examiner to review the Examiner's comments on page 3 of the First Action, second full paragraph. It appears from Applicant's amendment A that the gaps have not clearly been defined, along with the seal (45) (or the gas flow restricting device (s)) substantially filling both gaps (in the axial and radial

Art Unit: 3745

direction) up the outer surface of the platform (43). The Examiner's argument has not been overcome by Applicant's Amendment A (paper no. 8), thus this action is made FINAL.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Allen (U.S. Patent Number 4,063,845). Allen discloses a division wall of a gas turbine including a plurality of division wall sections (18, 28) (see Figure 2 and Col. 2, lines 18 and 31 of Allen) connected in a direction of arrangement of blade (16, 17) (see Figure 2 and Col. 2, lines 17 and 28 of Allen) of the gas turbine. Allen teaches a wall surface (see Figures 2-4 of Allen) having a roughly circular cross section as a whole, wherein the division wall section are fixed to an outer end or an inner end of a blade (16, 27) (see Figure 2 and Col. 2, lines 17 and 28 of Allen) of the turbine. Allen discloses the division walls being arranged while interposing a predetermined space between the outer end of the blade (16, 27) (see Figure 2 and Col. 2, lines 17 and 28 of Allen) to form a passage wall for high temperature gas together with a blade surface of the blade (16, 27). Allen teaches a gas flow restricting structure (35) (see Figure 2 and Col. 2, line 41 of Allen) preventing the gas from passing through a gap (36) (see Figure 2 and Col. 2, line 42 of Allen). Allen

Art Unit: 3745

discloses the structure (35) formed at a connecting portion between the division all sections in a flow direction of the gas from an opening on the upstream side (see Figure 1) of the gas in the gap (36). Regarding claim 2, Allen teaches the blade being a stationary blade (16) (see Figure 2 and Col. 2, line 17 of Allen) and the division wall being a shroud (28) (see Figure 2 and Col. 2, lines 45 of Allen). Regarding claim 3, Allen discloses the blade being a moving blade (27) (see Figure 2 and Col. 2, lines 17 and 28 of Allen) and the division wall being a platform (28) (see Figure 2 and Col. 2, lines 45 of Allen). Regarding claim 4, Allen teaches the blade being a moving blade (27) (see Figure 2 and Col. 2, lines 17 and 28 of Allen) and the division wall being a division ring (see Figures 2-4) provided in a compartment while interposing a certain space between the tip end of the moving blade (27). Regarding claim 5, Allen discloses the gas flow restricting structure being a seal member (35) (see Figure 2 and Col. 2, line 41 of Allen) formed into a projecting shape filling the gap (36) so as to prevent the gas from leaking outside the passage wall. Regarding claim 6, Allen teaches the gas flow restricting structure (35) being a shield panel which closes the opening on the upstream side of the gas in the gap. (Note, Applicant doesn't say how much the seal closes the opening on the upstream side of the gas in the gap. Any seal closing a minimum of the opening on the upstream side of the gas in the gap meets the Applicant's claim language.)

Art Unit: 3745

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE MONTH** shorten statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner James M. McAleenan whose telephone number is (703) 308-2827. The examiner can normally be reached on Monday thru Friday from 9:00 am to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look, can be reached at (703) 308-1044. The fax number for this Group is (703) 305-3588.

Art Unit: 3745

An inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

J. M. McAleenan 1/28/04

James M. McAleenan
Patent Examiner
Art Unit 3745

Ed Look
EDWARD K. LOOK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700
2/18/04